



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,136	08/16/2005	Aidan Charles Pennington	GB9-2002-0038-US1	3998
49056	7590	07/23/2007	EXAMINER	
LIEBERMAN & BRANDSDORFER, LLC			DEWS, BROOKE J	
802 STILL CREEK LANE			ART UNIT	PAPER NUMBER
GAIITHERSBURG, MD 20878			2182	
MAIL DATE		DELIVERY MODE		
07/23/2007		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/522,136	PENNINGTON, AIDAN CHARLES
	Examiner	Art Unit
	Brooke J. Dews	2182

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 05/07/2007.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 11-40 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 11-40 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 07 May 2007 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>20061031</u> . | 6) <input type="checkbox"/> Other: _____ |

Response to Amendment

1. In light of the amendment filed on 05/07/2007 the application is still pending. Examiner ***withdraws*** 35 U.S.C. 101 rejection directed towards non-statutory matter. Applicant's arguments have been fully considered but they are not persuasive. Upon further consideration of amended claims, a **FINAL REJECTION** is made in view of George Black et al. (US Patent 5878056), and Dave Tang "Storage Area Networking: The Network Behind the Server", and Applicant's admitted prior art (AAPA).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

2. Claims 11, 12, 17-20, 24-27, 31-38, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over George Black et al. (US Patent 5878056), hereafter Black, in view of Dave Tang, (Gadzoox Microsystems) "Storage Area Networking: The Network Behind the Server", hereafter Gadzoox.

Regarding claims 11 and 33 Black discloses a computer system comprising:

an asynchronous message (**asynchronous communication**) and queue system (via **MQSeries product**; **Column 9 line 13-30**);

a controller (via **message channel agent, MCA 180/ 180' and 190/190'**; **Figure 3**) in communication with said asynchronous message and queue system (via **MQSeries product**);

said controller (**MCA**) having control means (via **transport connection 195**) adapted to control (**moving the messages**) a message queue on behalf of a queue manager (**130/130'**); (**Column 8 line 60-63**)

and said controller (**MCA**) adapted to control a message (**send/receive a message**) selected from a group (**batch**) consisting of: non-persistent (**transient**) and persistent (**permanent**). (**Column 16 lines 11-25**)

Black, however, does not explicitly disclose a computer system comprising a storage area network.

Gadzoox discloses said storage area network. (Pages 1 and 2)

Gadzoox and Black are analogous art because they are from the same field of endeavor involving error or fault detection or recovery.

At the time of invention it would have been obvious to a person of ordinary skill in the art to combine Gadzoox's storage area network with Black's communications network. The motivation for doing so would have been to provide highly available and fault tolerant storage for shared resources. (**Pages 1 and 2 of Gadzoox**)

Therefore, it would have been obvious to combine Gadzoox with Black to obtain the invention as specified in claims 11 and 33.

Art Unit: 2182

Claim 12 is rejected for the reasons set forth hereinabove for claim 11, and further Black discloses the system (**Figure 2 and 3**) wherein said message queue (**destination queue 170/170'and transmission queue 160/160'**) is adapted to support simultaneous access by a first queue manager (**message queue manager 130**) and a second queue manager (**message queue manager 130'**). (**Figure 3**)

Claim 17 is rejected for the reasons set forth hereinabove for claim 11, and further Black discloses the system wherein said transactional message control (**via sending/ receiving MCA; Figure 5**) is in the form of a syncpoint coordinator (**via syncpoint-manager-controlled unit 330 and 360**). (**Column 12 line 9-11, 25-27, 42-46; Figure 5**)

Claim 18 is rejected for the reasons set forth hereinabove for claim 11, and further Black discloses the system wherein said network controller includes a lock manager (**via queue manager software**) adapted to preserve data integrity (**provide reliable storage of queued messages**). (**Column 9 line 27-30**)

Regarding claims 19, 26, 37, and 40 Black discloses a method for communicating in a computer system (**Figure 2 and 3**) comprising:

managing a queue (**destination queue 170/170'and transmission queue 160/160'**) in a network of said computer system (**10**) supporting an asynchronous messaging (**asynchronous communication**) and queuing system (**via MQSeries product; Column 9 line 13-30**);

receiving a message request (**via MQPUT; Figure 3**) at a queue manager (**message queue manager 130/130'**) of said network (**Figure 2 and 3**);

and passing (**via MQGET**) said received message request (**via MQPUT**) to a network controller (**message channel agent, MCA 180/ 180' and 190/190'; Figure 3**) of said network (**Figure 2 and 3**), wherein said controller includes means to control a message (**send/receive a message**) selected from a group (**batch**) consisting of non-persistent (**transient**) and persistent (**permanent**). (**Column 16 lines 11-25**)

Art Unit: 2182

Though Black reveals a communication network, Black, however, does not explicitly disclose a computer system comprising a storage area network.

Gadzoox discloses said storage area network. (**Pages 1 and 2**)

Gadzoox and Black are analogous art because they are from the same field of endeavor involving error or fault detection or recovery.

At the time of invention it would have been obvious to a person of ordinary skill in the art to combine Gadzoox's storage area network with Black's communications network. The motivation for doing so would have been to provide highly available and fault tolerant storage for shared resources. (**Pages 1 and 2 of Gadzoox**)

Therefore, it would have been obvious to combine Gadzoox with Black to obtain the invention as specified in claims 19, 26, 37, and 40.

Claim 20 and 27 are rejected for the reasons set forth hereinabove for claim 19 and 26, and further Black discloses the method further comprising supporting simultaneous access to said message queue (**destination queue 170/170'and transmission queue 160/160'**) by a first queue manager (**message queue manager 130**) and a second queue manager (**message queue manager 130'**). (**Figure 3**)

Claim 22 and 29 are rejected for the reasons set forth hereinabove for claim 21 and 28, and further discloses the method further comprising tracking a quantity of authorized connection handles (**the process responds success thru "retries"; Column 14 line 48-54**) for said queue (**destination queue 170/170'and transmission queue 160/160'**). (**Claim 4 of Black**)

Claim 24, 31, and 38 are rejected for the reasons set forth hereinabove for claim 19, 26, and 37, and further Black discloses the method wherein said transaction message control means (**via sending/receiving MCA; Figure 5**) utilizes a syncpoint coordinator (**via syncpoint-manager-controlled unit 330 and 360**). (**Column 12 line 9-11, 25-27, 42-46; Figure 5**)

Claim 25 and 32 is rejected for the reasons set forth hereinabove for claim 19 and 26, and further Black discloses wherein the step of managing a queue (**destination queue 170/170' and transmission queue 160/160'**) in a network includes preserving data integrity (**reliable storage of queued messages**). (**Column 9 line 27-30**)

Claim 34 is rejected for the reasons set forth hereinabove for claim 33, and further Black discloses the system wherein said transactional message control means (**via sending/ receiving MCA; Figure 5**) includes a syncpoint coordinator (**via syncpoint-manager-controlled unit 330 and 360**). (**Column 12 line 9-11, 25-27, 42-46; Figure 5**)

Claim 35 is rejected for the reasons set forth hereinabove for claim 33, and further Black discloses the system wherein said controller includes a lock manager (**via queue manager software**) adapted to preserve data integrity (**provide reliable storage of queued messages**). (**Column 9 line 27-30**)

Claim 36 is rejected for the reasons set forth hereinabove for claim 33, and further Black discloses the article wherein controller (**message channel agent, MCA 180/ 180' and 190/190'; Figure 3**) includes a first queue manager (**message queue manager 130**) and a second queue manager (**message queue manager 130'**) to manage said queue (**destination queue 170/170' and transmission queue 160/160'**), and wherein said queue managers (130/130') are heterogeneous (**via different data processing systems; Column 7 line12-15**). (**Figure 2**)

3. Claim 13-16, 21-23, 28-30, and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over George Black et al. (US Patent 5878056), hereafter Black, in view of Dave Tang, (Gadzoox Microsystems) "Storage Area Networking: The Network Behind the Server",

Art Unit: 2182

hereafter Gadzoox as applied to claim 11, 12, 17-20, 24-27, 31-38, and 40 above, and further in view of Applicant's Admitted Prior Art (US Publication 20060155894), hereafter AAPA.

Claim 13 is rejected for the reasons set forth hereinabove for claim 11, and further Black discloses the system (**Figure 2 and 3**) further adapted to be authorized (**via messages the application programs have agreed to read from**) by said controller and returned to a call request to connect an application with said queue manager (**message queue manager 130'**). (**Column 8 line 51-64**)

The modified Black, however, does not explicitly disclose the system comprising a connection handle.

However, AAPA teaches, in paragraph [0004] and [0005], that it is well within the level of skill in the art to provide a "connection handle" in an asynchronous messaging and queuing system.

Claim 14 is rejected for the reasons set forth hereinabove for claim 13, and further Black discloses the system further comprising a counter adapted to track a quantity authorized (**the process responds success thru "retries"; Column 14 line 48-54**) for said queue (**destination queue 170/170'and transmission queue 160/160'**). (**Claim 4 of Black**)

Claim 15 is rejected for the reasons set forth hereinabove for claim 13, and further AAPA discloses the system further comprising an object handle adapted to be dispensed by said queue manager for use in performance of a service to an object. (**Paragraph [0005]**)

Claim 16 is rejected for the reasons set forth hereinabove for claim 15, and further AAPA discloses the system wherein said object handle and said connection handle function as input parameters to a call request. (**Paragraph [0005]**)

Claim 21, 28, and 39 are rejected for the reasons set forth hereinabove for claim 19, 26, and 37, and further Black discloses the method further wherein the step of managing a queue (**destination queue 170/170'and transmission queue 160/160'**) in a network includes authorizing to a call request from said queue manager (**message queue manager 130/130'**). (Column 8 line 51-64)

The modified Black, however, does not explicitly disclose the system comprising a connection handle.

However, AAPA teaches, in paragraph [0004] and [0005], that it is well within the level of skill in the art to provide a “connection handle” in an asynchronous messaging and queuing system. AAPA discloses the system comprising a connection handle. (**Paragraph [0005]**)

Claim 23 and 30 are rejected for the reasons set forth hereinabove for claim 21 and 28, and further AAPA discloses the method wherein the step of managing a queue in a storage area network includes dispensing an object handle by said queue manager for performance of a service to an object. (**Paragraph [0005]**)

Response to Arguments

4. Applicant's arguments are summarized as:

A. Black does not explicitly disclose a computer system comprising a storage area network.

Tawil does not teach a queue in the storage area network, and furthermore does not teach a controller in the storage area network to control one or more messages.

In response to applicants arguments “A” examiner notes that George Black et al. (US Patent 5878056) and Dave Tang, (Gadzoox Microsystems) disclose the invention as necessitated by the claims. (**See above rejection for claims 11, 19, 26, 33, 37, and 40**).

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Clark Lubbers et al. (US Publication 2003/0188233) for failover system in storage area network.

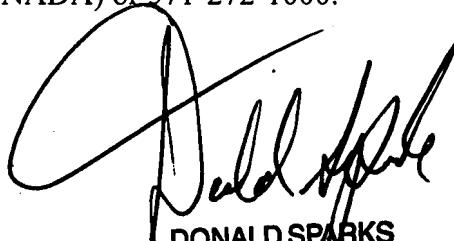
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brooke J. Dews whose telephone number is 571-270-1013. The examiner can normally be reached on M-Th 7:30-5:00, alternate F 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Sparks can be reached on (571) 272-4201. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2182

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

B6



DONALD SPARKS
SUPERVISORY PATENT EXAMINER